CERES Systems Engineering Committee

Members: Maria Mitchum, NASA, DMO
  Sandy Nolan, SAIC
  Jill Travers, DAAC
  Sue Sorlie, DAAC

Charter: Serve as a forum for resolving issues which affect more than one
  working group. Report to CERES Data Management Team

Sept. 28, 1999, 1:00 pm

Carla Franklin and Tammy Ayers joined the committee in a discussion on CERES PGE testing using a detailed Test Plan versus an automated script. Jill explained that a single test script could not be used in production testing with Codine.

The following are a list of functions that should not be automated
1. Uncompressing and untarring delivered files
2. Moving files into DAAC directories
3. Executing the production run script (include moving, >cd, to the appropriate directory)

The following are a list of combined functions that can be automated and will reduce both the changes that a subsystem will have to make to their Test Plan and the number of individual commands that a tester must execute:

1. Use a single script to compile multiple programs.
2. Set an environment variable to define the instance part of all output file names and then use the generic environment variable name in all output file names in the Test Plan. (Example: >setenv INSTANCE TRMM-PFM_Edition1_009001.19980105
   References in the Test Plan would use CER2.2P1_PCF_$INSTANCE and CER_ES8_$INSTANCE)
3. Combine 'cd' operations, ASCII file and PCF generators for a single PGE using a wrapper script.
4. Combine all output file comparison commands into one script for a single PGE. In addition to data file comparisons, also compare the Log files, and .met files to the corresponding comparison files. Echo the output from these comparisons both to a file and to the screen.
5. Delete the Ancillary Input File Table in Appendix C. Provide an ASCII listing of Ancillary Input Files in the tar file delivery. (See Note below)
6. Provide an associated cleanup script for each script provided in a CM delivery.

Note: Add a generic 'Ancillary Input File Table', as in Appendix C of the present Test Plan, in the Operators Manual using: yyyy - for year, mm - for month, etc. as file identifiers.

The committee also discussed the directory location of CERES HDF products at the SCF and at the DAAC. Some HDF products are quickly archived, during production, and do not reside in DAAC directories - thus are not available for validation. The committee recommends having each

Working Group construct the identical HDF output directory structure at the SCF, as configured at the DAAC, and keep at least one validation HDF product in this specific location. If other HDF products are required by the science team members, requests should be made to the Working Group Leads.

The committee reviewed a list of Test Plan Distribution Procedures and gave their comments to Maria.

Meeting adjourned 2:40 pm skn

October 5, 1999, 12:30 pm
The committee met with Denise Cooper and Tammy Ayers to discuss a proposal to change the Subsystem Test Plans to be more generic and to use automated test scripts instead of having many individual steps in the test plan. The committee reviewed a test plan and sample output from an automated script developed by Denise. Jill and Tammy provided input based on experience gained during SSI&T. The following was decided:

1. An automated script should be provided to test per PGE.
2. If one script is provided, options to test PGEs individually should be provided.
3. Output from the script should echo steps to the screen, provide an ls -l listing of directory/ filenames for output files created for comparison with the expected output.
4. Comparison output from the script should follow each PGE as it is run.
5. The output from the script should be printed to a file as well as to the screen.
6. The use of CODINE was discussed. Jill had some reservations about not providing an option as to whether to run with CODINE or not. There is a possibility of tying up the DAAC queues. It was concluded that an option asking the tester if the use of CODINE is desired might be best. The use of CODINE will be tested during the informal delivery of Instrument and more specific information will be given to the other subsystems at that time. Denise pointed out that source information for CODINE use should be placed in the ceres-env.csh file.

Meeting adjourned 1:45 pm djt